CONTENTS

Volume 15

Number 1, January 1981

VARIATIONS IN THE PROPERTIES OF EQUINE CHORIONIC GONADOTROPIN

Harold Papkoff 1

COMPARISON OF ONCE DAILY AND TWICE DAILY FSH INJECTIONS FOR SUPEROVULATING BEEF CATTLE

C.R. Looney, B.W. Boutte, L.F. Archbald and R.A. Godke 13

THE PRODUCTION OF MONOZYGOTIC TWINS OF PRESELECTED PARENTAGE BY MICROMANIPULATION OF NON-SURGICALLY COLLECTED COW EMBRYOS

S.M. Willadsen, H. Lenh-Jensen, C.B. Fehilly and R. Newcomb 23

EVALUATING THE BOVINE EMBRYO

B.F. Shea 31

NON-SURGICAL EMBRYO TRANSFER IN CATTLE

Joseph M. Wright 43

HEALTH CERTIFICATION FOR LIVESTOCK EMBRYO TRANSFER

H.A. Waters 57

XENOGENOUS FERTILIZATION OF LABORATORY AND DOMESTIC ANIMALS IN THE OVIDUCT OF THE PSEUDOPREGNANT RABBIT

P.J. Hirst, F.J. DeMayo and W. Richard Dukelow 67

EMBRYO TRANSFER IN EXOTIC ANIMALS

B. Durrant and K. Benirschke 77

ENDOCRINOLOGY OF THE ESTROUS CYCLE OF THE MARE: APPLICATIONS TO EMBRYO TRANSFER

C.H.G. Irvine 85

INFLUENCE OF INTENSIVE EMBRYO COLLECTION ON SUBSEQUENT EMBRYO PRODUCTION

J.L. Griffin, R.S. Castleberry and H.S. Schneider, Jr. ... 105

INFLUENCE OF DAY OF COLLECTION ON RECOVERY RATE IN MATURE CYCLING MARES

J.L. Griffin, R.S. Castleberry and H.S. Schneider, Jr. ... 106

THERIOGENOLOGY

A COMPARISON OF REPRODUCTIVE PERFORMANCE OF FERTILE VERSUS INFERTILE DONOR MARES

K.J. Imel, E.L. Squires and R.K. Shideler 107

PRODUCTION OF PMSG ANTISERUM IN CATTLE: ASSAY OF INHIBITORY ACTIVITY AND USE IN SUPEROVULATED HEIFERS

J. Saumande and D. Chupin 108

THE RELATIONSHIP BETWEEN AGE AND RESPONSE TO SUPEROVULATION IN HOLSTEIN COWS AND HEIFERS

J.F. Hasler, G.P. Brooke and A.D. McCauley 109

SUPEROVULATION IN THE COW USING PMSG OR HAP

M.P. Boland, L.G. Kennedy, T.F. Crosby and I. Gordon 110

CHARACTERIZATION AND MATURATION OF PREPUBERAL CALF FOLLICULAR OOCYTES IN VITRO

R.D. Dahlhausen, J.B. Bonham, G. Meyers and T.M. Ludwick . 111

PREGNANCY RATES AND AMBRYO SURVIVAL FOLLOWING TRANSFER OF BOVINE EMBRYOS STORED AT 4°C

R.H. BonDurant, G.B. Anderson, M. Boland, P.T. Cupps and M.A. Hughes 112

FREEZING BOVINE BLASTOCYSTS WITH 1.2 PROPANEDIOL AS CRYOPROTECTANT

J.-P. Renard, Y. Heyman and J.-P. Ozil 113

DEEP FREEZING 7- TO 8- AND 10- TO 11-DAY-OLD CATTLE EMBRYOS

H.R. Tervit, R.P. Elsden and G.D. Farrand 114

COCULTURE OF BOVINE EMBRYOS WITH BOVINE FIBROBLASTS

Frank B. Kuzan and R.W. Wright, Jr. 115

CYTOGENETICS OF PREIMPLANTATION BOVINE EMBRYOS

W.A. King and T. Linares 116

PENETRATION OF ZONA-FREE HAMSTER OVA BY BULL SPERM AFTER FROZEN STORAGE

Daniel Bousquet and Benjamin G. Brackett 117

SUPEROVULATION OF GOATS WITH FSH OR FSH + LH FOLLOWING SYNCHRONIZATION OF ESTRUS

K.R. Bondioli and R.W. Wright, Jr. 118

DEVELOPMENT OF ONE-CELL PORCINE EMBRYOS IN TWO CULTURE SYSTEMS

A.R. Menino, Jr. and R.W. Wright, Jr. 119

SUPEROVULATION IN THE PREPUBERAL CALF

D. Jillella and A.A. Baker 120

FOLLICULAR DEVELOPMENT IN PREPUBERTAL DAIRY HEIFERS SUPEROVULATED WITH FSH-p

K.L. Longo, D.P. Marcinkowski, C.O. Gray, J.B. Bonham R.D. Dahlhausen and T.M. Ludwick 121

TRANSPORT OF FROZEN CATTLE EMBRYOS FROM U.S.A. TO MEXICO

S. de los Santos-Valadez, H.R. Tervit, R.P. Elsden and G.E. Seidel, Jr. 123

NON-SURGICAL TRANSFER OF BOVINE EMBRYOS

J.L. Curtis, R.P. Elsden and G.E. Seidel, Jr. 124

HEAT INACTIVATION OF LAMB, NEWBORN CALF AND STEER SERA FOR POTENTIAL USE IN EMBRYO TRANSPLANT PROCEDURES

S.A. Voelkel, K.C. Arntson-Morgan and R.A. Godke 125

COMPARISON OF SIMULTANEOUS AND INDEPENDENT METHODS OF NON-SURGICAL EMBRYO COLLECTION

J.H. Hay, D.A. Phelps, D.R. Hanks and W.D. Foote 126

PREGNANCY RATES FOLLOWING PREPARATION OF DONORS AND RECIPIENTS ON THE FARM AND COLLECTION AND TRANSFER AT THE LABORATORY

R.P. Elsden, H.R. Tervit, G.D. Farrand, L.G. Case and N.R. Homan 127

A MORPHOLOGICAL STUDY OF THE BLASTOCYSTS COLLECTED FROM REPEAT BREEDER HEIFERS

T. Linares 128

INDUCTION OF ABORTION IN FEEDLOT HEIFERS USING A COMBINATION OF $PGF_{2\alpha}$ AND DEXAMETHASONE

W.H. Johnson, A.D. Barth, W.M. Adams, J.M. Manns, N.W. Rawlings and R.J. Mapletoft 129

EMBRYO TRANSFER AND ITS EFFECTS ON GENETIC RESEARCH

R.S. Castleberry, H.J. Schneider, J.G. Peeples, J.L. Johnson, H.W. Leipold and R.R. Schalles 130

THE SURGICAL FIXATION OF CATHETERS IN THE UTERINE HORNS OF SUPEROVULATED COWS FOR THE COLLECTION OF OVA

A.A. Baker and D. Jillella 131

Number 2, February 1981

REPRODUCTIVE PERFORMANCE OF POLWARTH AND CORRIEDALE SHEEP IN TASMANIA

C.F. King 135

PREGNANCY IN SUBOESTRUS BUFFALOES (BUBALUS BUBALIS) AFTER TREATMENT WITH PROSTAGLANDIN $F_{2\alpha}$

N.K. Khurana, R.P.S. Tyagi, R.C. Gupta and S.K. Verma 149

SEGMENTAL APLASIA IN THE UTERUS OF A EUROPEAN WILD PIG (*SUS SCROFA*)

A. Oelschlaeger, D.F. Gibson, P.F. Scanlon and H.P. Veit . 157

CIRCADIAN VARIATIONS OF PLASMA LH AND TESTOSTERONE IN ADULT SWAMP BUFFALO BULLS

P. Chantaraprateep, M. Kamonpatana, C. Lohachit, A. Kunawongkrit, P. Verakul, P. Bodhipaksha and C. Ngramsuriyaroj 161

SPERM MOTILITY ANALYZER (SMA), A PRACTICAL TOOL OF MOTILITY AND CELL CONCENTRATION DETERMINATIONS IN ARTIFICIAL INSEMINATION CENTERS

B. Bartoov, D. Kalay and A. Mayevsky 173

CORPUS LUTEUM FUNCTION IN EWES STIMULATED BY RAMS

T.W. Knight, H.R. Tervit and R.J. Fairclough 183

CONTROL OF OVULATION IN CYCLING MARES WITH OVARIAN STEROIDS AND PROSTAGLANDIN

R.G. Loy, R. Pemstein, D. O'Canna and R.H. Douglas 191

EFFECTS OF THERMAL STRESS ON PLASMA CONCENTRATIONS OF LUTEINIZING HORMONE, PROGESTERONE, PROLACTIN AND TESTOSTERONE IN THE CYCLING EWE

T.G. Hill and C.W. Alliston 201

A NOTE ON THE ABSENCE OF ACTH-LIKE ACTIVITY SECRETED BY THE GOAT PLACENTA *IN VIVO* AND THE INDEPENDENCE OF FETAL ENDOCRINE DEVELOPMENT OF THE MATERNAL HYPOPHYSIS

H.L. Buttle and O.M. Horwood 211

PLASMA PROLACTIN CONCENTRATION IN GILTS REARED IN CONFINEMENT

K.L. Esbenshade, B.N. Day, A.L. Mulloy and P.V. Malven ... 219

ACCURACY OF ESTIMATION OF TESTIS WEIGHT FROM *IN SITU* TESTIS MEASURES IN RAM LAMBS

D.R. Notter, J.R. Lucas and F.S. McClaugherty 227

Number 3, March 1981

PROTEIN CONTENT OF PROCINE EMBRYOS DURING THE FIRST NINE DAYS OF

R.W. Wright, Jr., J. Grammer, K. Bondioli, F. Kuzan and A. Memino, Jr. 235

CRYPTORCHIDISM AND MALFORMATIONS OF THE SCROTUM AND TESTES OF DONKEYS

J. Kumi-Diaka, G.G. Kwanashie and D. Ogwu 241

EXOGENOUS STEROID EFFECTS ON LITTER SIZE AND EARLY EMBRYONIC SURVIVAL IN SWINE

W.F. de Sa, P. Pleumsamran, C.B. Morcom and W.R. Dukelow . 245

THE EFFECT OF LUTEINIZING HORMONE, HUMAN CHORIONIC GONADOTROPIN AND ADRENOCORTICOTROPIC HORMONE ON PUBERTY IN GILTS REARED IN CONFINEMENT

K.L. Esbenshade and B.N. Day 257

THE NON-LUTEOLYTIC EFFECT OF PROSTAGLANDIN $F_{2\alpha}$ AT THE BEGINNING OF THE BOVINE OESTROUS CYCLE: THE ROLE OF OESTROGEN?

J. Saumande and D. Chupin 265

VAGINAL PH DURING ESTRUS IN MARES

K.L. Polak and W.G. Kammlade, Jr. 271

STUDIES ON THE CHROMOSOMES AND SEX CHROMATIN IN THE HORSE

M.G. Blue 277

CERVICAL TRANSFER OF DEEP FROZEN CATTLE EMBRYOS

J.-P. Renard, J.-P. Ozil and Y. Heyman 311

CHROMOSOME PREPARATION FROM SINGLE BLASTOMERES AFTER COLCEMID TREATMENT AND REMOVAL FROM RABBIT MORULAE-UNSUITABLE FOR SEXING IN ROUTINE EMBRYO TRANSFER

O.J. Rottmann 321

DETECTION OF ESTRUS WITH COWS ADMINISTERED TESTOSTERONE VIA INJECTIONS AND/OR SILASTIC IMPLANTS

D.J. Kesler, T.R. Troxel, D.L. Vincent, N.S. Scheffrahn and R.C. Noble 327

Number 4, April 1981

EFFECT FO CALCIUM AND FATTY ACIDS ON THE ISOLATION OF STALLION SPERMATOZOA IN BSA

K.E. Dixon and J.L. Kreider 335

EFFECT OF ESTRADIOL-17β ON PGF AND TOTAL PROTEIN CONTENT IN BOVINE UTERINE FLUSHINGS AND PERIPHERAL PLASMA CONCENTRATION OF 13, 14-DIHYDRO-15-KETO-$PGF_{2\alpha}$

F.F. Bartol, W.W. Thatcher, G.S. Lewis, E.L. Bliss, M. Drost and F.W. Bazer 345

INFLUENCE OF GnRH INFUSION ON ENDOCRINE PARAMETERS AND DURATION OF POSTPARTUM ANESTRUS IN BEEF COWS

R.M. Lofstedt, J.G. Manns, B.D. Murphy, W.D. Humphrey and R.J. Mapletoft 359

RELATIONSHIPS AMONG PRODUCTION TRAITS AND ESTIMATES OF SEX DRIVE AND DOMINANCE VALUE IN YEARLING BEEF BULLS

A.G. Ologun, P.J. Chenoweth and J.S. Brinks 379

RESPONSE OF ANESTROUS EWES TO NORGESTOMET AND PMSG

R.H. Carpenter and J.C. Spitzer 389

DEVELOPMENT AND VIABILITY OF FROZEN-THAWED CATTLE EMBRYOS

H.R. Tervit and R.P. Elsden 395

PLASMA PROGESTOGEN LEVELS IN PREGNANT MARES FOLLOWING ADMINISTRATION OF EXOGENOUS PROGESTERONE

J.E. Dinger and J.P. McCall 405

EXAMINATION OF DROUGHTMASTER BULLS FOR BREEDING SOUNDNESS

T.A. Bongso, M.R. Jainudeen and S. Dass 415

TWO STEP FREEZING OF COW EMBRYOS IN 1.4 M GLYCEROL

H. Lehn-Jensen, T. Greve and A.P. Navas 427

Number 5, May 1981

LIMITED MULTIPLE OVULATION IN HEIFERS FED HIGH PLANE OF NUTRITION BEFORE PMSG STIMULATION AND STEROID HORMONE CONCENTRATIONS IN SINGLE, TWIN AND MULTIPLE OVULATORS

J.J. Dufour, V. Adelakoun and P. Matton 433

GnRH INDUCED LH RELEASE IN SUCKLED BEEF COWS. 1. THE EFFECTS OF DAYS POSTPARTUM AND ESTRADIOL-17β CONCENTRATIONS ON THE RELEASE OF LH FOLLOWING ADMINISTRATION OF GnRH

H.J. Irvin, A.A. Zaied, B.N. Day and H.A. Garverick 443

DURATION OF COPULATION AND FERTILITY IN THE MINK, MUSTELA VISON

C.E. Adams and A.A. Rietveld 449

EVALUATION OF PITUITARY RESPONSIVENESS TO LHRH AS A PREGNANCY TEST IN EWES

G.S. Foster, G.K. Tarnavsky, T.E. Platt and J.J. Reeves .. 453

IMPROVEMENT OF EARLY PREGNANCY DIAGNOSIS BASED ON MILK PROGESTERONE BY THE USE OF PROGESTIN-IMPREGNATED VAGINAL SPONGES

M. Shemesh, N. Ayalon, S. Marcus, Y. Danielli, L. Shore and S. Lavi 459

PERIPARTAL CHANGES OF ESTRONE, PROGESTERONE AND PROSTAGLANDIN IN THE WATER BUFFALO

B.M.A.O. Perera, H. Abeygunawardena, A. Thamotharam, H. Kindahl and L.-E. Edqvist 463

BOVINE STREPTOTHRICOSIS AND REPRODUCTION IN NORTHERN NIGERIA: A CASE STUDY

D. Ogwu, D.I.K. Osori and J. Kumi-Diaka 469

ANDROGEN BINDING PROTEIN, SPERM PRODUCTION, SEMEN OUTPUT AND LH AND TESTOSTERONE PROFILES IN YOUNG POSTPUBERTAL BULLS

P. Le Cacheux, S. Carreau, M. Drosdowsky, M. Nibart, G. Malak and M. Thibier 477

DELAYED PUBERTY IN GILTS IN TOTAL CONFINEMENT

G.B. Rampacek, R.B. Kraeling and T.E. Kiser 491

IN VIVO PELVIMETRY IN BUFFALOES (BOS BUBALUS)

A.S. Dhaliwal, Y.G. Dugwekar and R.D. Sharma 501

EFFECTS OF WEANING AGE ON MORTALITY OF COLONY-BORN MACACA NEMESTRINA

G.P. Sackett 505

POSTPARTUM UTERINE MOTILITY MEASUREMENTS IN DAIRY COWS RETAINING THEIR FETAL MEMBRANES

L.R. Martin, W.F. Williams, E. Russek and T.S. Gross 513

Number 6, June 1981

EMBRYO TRANSFER BIBLIOGRAPHY V

S.M. Seidel and G.E. Seidel, Jr. 525

PLASMA PROLACTIN IN THE PERIPARTURIENT SOW

G.T. Vale and W.C. Wagner 537

OESTRUS SYNCHRONIZATION IN SHEEP WITH PROGESTERONE-IMPREGNATED (MAP) INTRAVAGINAL SPONGES AND A PROSTAGLANDIN ANALOGUE

P.G. Loubser and C.H. van Niekerk 547

FACTORS AFFECTING GESTATION LENGTH IN DAIRY CATTLE

R.H. Foote 553

UTERINE INFECTIONS IN THE POSTPARTUM COW I. EFFECT OF DIETARY CRUDE PROTEIN RESTRICTION

C.A. Ruder, R.G. Sasser, R.J. Williams, J.K. Ely, R.C. Bull and J.E. Butler 561

UTERINE INFECTIONS IN THE POSTPARTUM COW II. POSSIBLE SYNERGISTIC EFFECT OF FUSOBACTERIUM NECROPHORUM AND CORYNEBACTERIUM PYOGENES

C.A. Ruder, R.G. Sasser, R.J. Williams, J.K. Ely, R.C. Bull and J.E. Butler 573

INDUCTION AND INHIBITION OF MEIOTIC MATURATION OF FOLLICLE-ENCLOSED PORCINE OOCYTES IN VITRO

B. Meinecke and S. Meinecke-Tillmann 581

BREED-TYPE EFFECTS ON FERTILITY TRAITS OF YOUNG BULLS

D.R. Hanks, C.M. Bailey, J.S. Dow, Jr. and L.E. Lindner .. 591

FERTILITY OF EWES AFTER SYNCHRONIZATION OF ESTRUS WITH PROSTAGLANDIN $F_{2\alpha}$ AND ARTIFICIAL INSEMINATION

A.J. Hackett, G.A. Langford and H.A. Robertson 599

REPRODUCTIVE STATUS OF COWS AND INCIDENCE OF ANTISPERM ANTIBODIES

J.K. Farahani, W. Tompkins and W.C. Wagner 605

REDUCING THE INCIDENCE OF SHORT ESTROUS CYCLES IN BEEF COWS WITH NORGESTOMET

J.A. Ramirez-Godinez, G.H. Kiracofe, R.M. McKee, R.R. Schalles and R.J. Kittok 613